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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,729	09/18/2003	Arihiro Takeda	1117.68339	5616

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EXAMINER	
DUONG, THOI V	
ART UNIT	**PAPER NUMBER**
2871	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/664,729	TAKEDA ET AL.	
	Examiner	Art Unit	
	Thoi V Duong	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/047,216.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0504*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the Amendment filed September 28, 2004.

Accordingly, claim 27 was amended, claims 1-26 and 32-33 were cancelled. Currently, claims 27-31 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 27-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Song et al. (USPN 6,710,837 B1).

Re claim 27, Song et al. discloses a liquid crystal display device comprising:

a first substrate 10 (TFT substrate) having thereon a pixel electrode 200 and an active element (Figs. 20A-20D; col. 11, line 65 through col. 12, line 15);

a second substrate 20 (color filter substrate) having thereon an opposed electrode 130 (see Figs. 19A-19E; col. 11, lines 58-64); and

a liquid crystal layer interposed between said first and second substrates with said electrodes facing each other (col. 12, lines 15-23),

wherein, as shown in Figs. 17 and 18, a first orientation control element (horizontal portion of 252 of a crossed-shaped aperture 250) extending in a nonparallel direction (direction 333) relative to an extending direction of an edge of said pixel electrode 200 (direction 444) and a second orientation control element (vertical portion of a protrusion pattern 170) extending in a parallel direction relative to an extending direction of said edge (direction 444) are provided on at least one of said first and second substrates; and

said second orientation control element is constituted by an assembly of plural orientation control elements (protrusions of the protrusion pattern 170 connected together along the edge of the pixel electrode 200 in the direction 444) having directivity in a direction of the substrate's plane surface (see also Fig. 19E),

wherein, re claim 29, said first orientation control element is a slit (aperture) formed in said pixel electrode 200 (col. 9, lines 65-67);

wherein, re claim 30, said second orientation control elements is a protrusion formed on said opposed electrode 130 (Fig. 19E); and

wherein, re claim 31, a dielectric anisotropy of said liquid crystal molecules of said liquid crystal layer is negative (col. 12, lines 19-23).

Re claim 28, as shown in Figs. 17, 18 and 19E, the protrusion pattern 170 of Song et al. comprises a plurality of horizontal portions formed in the direction 333 which may be considered as a first orientation control element (instead of the horizontal portion 252 of the aperture 250), where said second orientation control element is formed to extend in an outer direction from said first orientation control element (direction 444 along the edge of the pixel electrode 200) which is adjacent to said second control element on the same substrate 20.

Response to Arguments

4. Applicant's arguments filed September 28, 2004 have been fully considered but they are not persuasive.

Re claim 27, Applicant argued that the Examiner has not identified an assembly of shapes in Song that extend in the same parallel direction on the pixel edge. The Examiner disagrees with Applicant's remarks since Figs. 17 and 18 of Song clearly show that the vertical portion of the protrusion pattern 170 is an assembly of plurality orientation control elements which are connected together along the edge of the pixel electrode 200 in the direction 444.

Re claim 28, Applicant also argued that Song et al. teach away from the claimed invention which recites that the first and second orientation control elements are located on the same substrate. The Examiner disagrees since the horizontal portion of the protrusion pattern 170 may be considered as a first orientation control element instead of the horizontal portion 252 of the aperture 250; therefore, the second orientation control element, which is a vertical portion of the protrusion pattern 170, and the first

orientation control element are formed on the same substrate as shown in Figs. 17 and 19E.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong

12/04/2004

TARIFUR R. CHOWDHURY
PRIMARY EXAMINER